

PATENT COOPERATION TREATY

REC'D 29 MAR 2005

From the
INTERNATIONAL SEARCHING AUTHORITY

WIPO

PCT

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To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2004/052931

International filing date (day/month/year)
29.12.2004

Priority date (day/month/year)
12.01.2004

International Patent Classification (IPC) or both national classification and IPC
H03L7/107, H03L7/089

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/052931

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
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PCT/IB2004/052931

Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	4-7
	No: Claims	1-3,8-10
Inventive step (IS)	Yes: Claims	4-7
	No: Claims	1-3,8-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Of the documents cited in the International Search Report the following documents are mentioned in this communication:

D1: US-A-5 694 087 (FERRAILOLO ET AL) 2 December 1997 (1997-12-02)

D2: US-A-5 208 555 (GRAHAM ET AL) 4 May 1993 (1993-05-04)

1. The present application does not meet the criterion set forth in Article 33 (2) PCT because the subject matter of claims 1-3 and 8-10 is not new as explained below.
 - 1.1 Document D1 is considered the closest prior art with respect to the present application. D1 discloses in figure 1 a phase locked loop (PLL) comprising an oscillator circuit (5) controlled in response to a signal of a phase or frequency detection circuit (9), with:
 - a) first timer means (1) for receiving a predetermined threshold frequency (REF);
 - b) second timer means (2) for receiving an output frequency of said oscillator circuit (11);
 - c) change control means (3) for generating a blocking signal in response to the outputs of said first and second timer means, and
 - d) blocking means (4) for suppressing supply (column 2 lines 40-52) to said oscillator circuit of said signal of a phase or frequency detection circuit in response to said blocking signal.The subject matter of independent claim 1 is therefore not new with respect to the disclosure of document D1.
 - 1.2 Regarding claim 2, although a reference oscillator is not disclosed explicitly in D1, the possibility of the reference frequency being generated by an oscillator may be considered implicit in D1.
 - 1.3 Each of the timer means in D1 comprises a counter with the relevant frequency

supplied to its clock input, hence claim 3 lacks novelty.

- 1.4 In D1 'it is possible to couple the latch (3) output to the charge pump (8) to inhibit the charge pump's output' (column 3 lines 25-26) and hence claim 8 is not new.
- 1.5 D1 possesses 'a signal of a phase or frequency detection circuit' which is used to increase (UP) or decrease (DOWN) the output frequency of said oscillator circuit. The reference frequency (REF) is an upper threshold frequency. Thus D1 discloses all of the features of claim 9. Claim 10 is merely a mirror image of claim 9 and therefore also cannot be considered novel.
2. Regarding inventive step Article 33 (3) PCT the following comments are made:
 - 2.1 D1 discloses all of the features of claim 4 except that instead of the finite state machine (3) generating a reset signal in response to at least one of the carry signals, each carry signal is connected directly to the reset of the other counter. Though apparently a simple modification, using an output of the finite state machine to generate a reset signal results in different circuit functionality and therefore, since no incentive appears in D1 to make this modification, claim 4 and associated claims 5-7 appear to involve an inventive step.
 - 2.2 For information, it is noted that none of the claims contain the feature that the PLL input signal and the predetermined threshold frequency are separate physical entities as implied by figure 1 and the description. This feature alone would not appear sufficient to add an inventive step to the present claim 1, because this possibility would be readily apparent to one skilled in the art given the structures known from D1 figure 1 and D2 figures 2 and 4.

Re Item VIII

3. Claim 1 lacks clarity Article 6 PCT, because in part d) of claim 1 a 'said output signal' is referred to which has is not defined elsewhere in the claim. This also renders

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.,

PCT/IB2004/052931

claims 9 and 10 unclear.

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